

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) An isolated DNA molecule from a *Bacillus* species encoding a single-strand binding protein, the isolated DNA molecule ~~either:~~
 - (i) ~~comprising a nucleotide sequence of SEQ ID NO: 175;~~
 - (ii) ~~encoding an amino acid sequence of SEQ ID NO: 176; or~~
 - (iii) hybridizing to the complete complement of SEQ ID NO: 175 under hybridization conditions that are at least as stringent as use of a medium comprising ~~at most about~~ 0.9M sodium citrate buffer at a temperature of ~~at least about~~ 37°C.
2. (Original) The isolated DNA molecule according to claim 1, wherein the *Bacillus* species is *Bacillus stearothermophilus*.
- 3-5 (Cancelled)
6. (Original) An expression system comprising an expression vector into which is inserted a heterologous DNA molecule according to claim 1.
7. (Original) A host cell comprising a heterologous DNA molecule according to claim 1.
8. (Original) A method of producing a recombinant thermostable single-strand binding protein from a *Bacillus* species, said method comprising:
 - transforming a host cell with the heterologous DNA molecule according to claim 1 under conditions suitable for expression of the single-strand binding protein, and
 - isolating the single-strand binding protein.
9. (Original) An isolated DNA molecule from *Bacillus stearothermophilus* encoding a single-strand binding protein, wherein the single-strand binding protein can bind to ssDNA to remove secondary structure elements from the ssDNA.
10. (New) An isolated DNA molecule according to claim 1, wherein the hybridization conditions comprise a medium comprising 20% formamide and 0.9M sodium citrate buffer and at a temperature of 42°C, followed by washing in 0.2X sodium citrate buffer at 42°C.

11. (New) An isolated DNA molecule according to claim 1, wherein the hybridization conditions comprise a medium comprising 5X sodium citrate buffer and at a temperature of 65°C, followed by washing in 5X sodium citrate buffer at 65°C.

12. (New) An isolated DNA molecule according to claim 1, wherein the single-strand binding protein encoded by the DNA molecule is at least 80 percent identical to the amino acid sequence of SEQ ID NO: 176.

13. (New) An isolated DNA molecule according to claim 1, wherein the single-strand binding protein encoded by the DNA molecule is at least 90 percent identical to the amino acid sequence of SEQ ID NO: 176.

14. (New) An isolated DNA molecule according to claim 1, wherein the single-strand binding protein encoded by the DNA molecule is at least 95 percent identical to the amino acid sequence of SEQ ID NO: 176.

15. (New) An isolated DNA molecule according to claim 1, wherein the DNA molecule is at least 90 percent identical to the nucleotide sequence of SEQ ID NO: 175.

16. (New) An isolated DNA molecule according to claim 1, wherein the DNA molecule is at least 95 percent identical to the nucleotide sequence of SEQ ID NO: 175.

17. (New) An isolated DNA molecule that encodes the amino acid sequence of SEQ ID NO: 176.

18. (New) The isolated DNA molecule according to claim 17, wherein the DNA molecule comprises the nucleotide sequence of SEQ ID NO: 175.

19. (New) An expression system comprising an expression vector into which is inserted a heterologous DNA molecule according to claim 17.

20. (New) A host cell comprising a heterologous DNA molecule according to claim 1.

21. (New) A method of producing a recombinant thermostable single-strand binding protein of a DNA polymerase III-type enzyme, said method comprising:
transforming a host cell with the heterologous DNA molecule
according to claim 17 under conditions suitable for expression of the single-strand binding protein, and
isolating the single-strand binding protein.